

RTIS USE ONLY

Application No. 10/081,976
Examiner-GAU KE-2804

Examiner-GAU

Prepared by

Date _____

No. of queries

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E(1FW)

JACKET

- | | | | |
|----------------------|------------------------|--------------------|----------------|
| a. Serial No. | f. Foreign Priority | k. Print Claim(s) | p. PTO-1449 |
| b. Applicant(s) | g. Disclaimer | l. Print Fig. | q. PTOL-85b |
| c. Continuing Data | h. Microfiche Appendix | m. Searched Column | r. Abstract |
| d. PCT | i. Title | n. PTO-270/328 | s. Sheets/Figs |
| e. Domestic Priority | j. Claims Allowed | o. PTO-892 | t. Other |

SPECIFICATION

- a. Page Missing
- b. Text Continuity
- c. Holes through Data
- d. Other Missing Text
- e. Illegible Text
- f. Duplicate Text
- g. Brief Description
- h. Sequence Listing
- i. Appendix
- j. Amendments
- k. Other

CLAIMS

- a. Claim(s) Missing
- b. Improper Dependency
- c. Duplicate Numbers
- d. Incorrect Numbering
- e. Index Disagrees
- f. Punctuation
- g. Amendments
- h. Bracketing
- i. Missing Text
- j. Duplicate Text
- k. Other

MESSAGE

End of Original claims 23 and 33 are cut-OFF - data missing. (please advise/provide missing data - see attached)

Thank you

initials

RESPONSE

initials

⁷
~~14.~~ (original) The waveguide structure of claim ²~~8~~, wherein a taper angle of the interconnection structure is no greater than 0.4 degrees.

⁸
~~15.~~ (original) The waveguide structure of claim ²~~8~~, wherein the EO polymer waveguide and the passive polymer waveguide are formed as rib structures.

⁹
~~16.~~ (original) The waveguide structure of claim ²~~8~~, wherein the EO polymer waveguide has a higher refractive index than the passive polymer waveguide.

¹⁰
~~17.~~ (original) The waveguide structure of claim ²~~8~~, wherein the passive polymer waveguide has a larger mode profile than the EO polymer waveguide.

~~18-19.~~ (canceled)

¹¹
~~20.~~ (original) The waveguide structure of claim ²~~8~~, wherein the passive polymer waveguide comprises a fluorinated polymer.

¹²
~~21.~~ (original) The waveguide structure of claim ²~~8~~, wherein the passive polymer waveguide comprises a fluorinated acrylate.

¹³
~~22.~~ (new) A method of operably interconnecting an electrooptic (EO) polymer waveguide and a passive polymer waveguide, comprising:

providing a tapered electrooptic (EO) polymer waveguide interconnection structure between an EO polymer waveguide and a passive polymer waveguide, the passive polymer waveguide including a fluorinated acrylate.

¹⁴
~~23.~~ (new) A waveguide structure, comprising:
an electrooptic (EO) polymer waveguide;
a passive polymer waveguide including a fluorinated acrylate; and
a tapered EO polymer waveguide interconnection structure between the EO polymer

¹⁵
~~24~~. (new) The waveguide structure of claim ¹⁴~~23~~, wherein the EO polymer waveguide and the passive polymer waveguide provide single mode propagation, and the interconnection structure provides a coupling between the two waveguides without higher order mode coupling.

¹⁶
~~25~~. (new) The waveguide structure of claim ¹⁴~~23~~, wherein an interconnection loss associated with the interconnection structure is less than 0.4 dB.

¹⁷
~~26~~. (new) The waveguide structure of claim ¹⁴~~23~~, wherein the interconnection structure is vertically tapered.

¹⁸
~~27~~. (new) The waveguide structure of claim ¹⁴~~23~~, wherein a taper length of the interconnection structure is 300 μm or more.

¹⁹
~~28~~. (new) The waveguide structure of claim ¹⁴~~23~~, wherein a taper angle of the interconnection structure is no greater than 0.4 degrees.

²⁰
~~29~~. (new) The waveguide structure of claim ¹⁴~~23~~, wherein the EO polymer waveguide and the passive polymer waveguide are formed as rib structures.

²¹
~~30~~. (new) The waveguide structure of claim ¹⁴~~23~~, wherein the EO polymer waveguide has a higher refractive index than the passive polymer waveguide.

²²
~~31~~. (new) The waveguide structure of claim ¹⁴~~23~~, wherein the passive polymer waveguide has a larger mode profile than the EO polymer waveguide.

²³
~~32~~. (new) The waveguide structure of claim ¹⁴~~23~~, wherein the EO polymer waveguide comprises a nonlinear chromophore.

²⁴
~~33~~. (new) The waveguide structure of claim ²³~~32~~, wherein the nonlinear chromophore includes a triarylmethane acceptor and a phenyltetrazene bridge.